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'Taking Screenshots of Interior

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'Macro: CATIA\_Screenshot\_Interior.CATScript

'Version: 1

'Code: CATIA CATScript

'Purpose: Taking Screenshots of Interior

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'Start code

Sub CATMain()

'Declaration of a part/product as an object (with product same)

Dim Interior As ProductDocument

'Open part/product via link

Set Interior = CATIA.Documents.Open ("T:\04\_Cluster\_C\500\_SRT\033\_SRT Package\Parametric Model\AEV\_Tool\07\_CAD\03\_Interior.CATProduct")

'Update product

Interior.Product.Update

'Turn off popups

CATIA.DisplayFileAlerts = False

'Set the active window as the viewer

Dim ObjViewer3D As Viewer3D

Set objViewer3D = CATIA.ActiveWindow.ActiveViewer

'Set camera angle to certain view

Dim objCamera3D As Camera3D

'Turning off the spec tree

Dim objSpecWindow As SpecsAndGeomWindow

Set objSpecWindow = CATIA.ActiveWindow

objSpecWindow.Layout = catWindowGeomOnly

'Toggle Compass

CATIA.StartCommand("Compass")

'Changing background color to white

Dim DBLBackArray(2)

objViewer3D.GetBackgroundColor(dblBackArray)

Dim dblWhiteArray(2)

dblWhiteArray(0) = 1

dblWhiteArray(1) = 1

dblWhiteArray(2) = 1

objViewer3D.PutBackgroundColor(dblWhiteArray)

'Clearing selection for picture

CATIA.ActiveDocument.Selection.Clear()

'Increasing to full screen to obtain maximum resolution

objViewer3D.FullScreen = True

'File location to save image

Dim fileloc As String

fileloc = "T:\04\_Cluster\_C\500\_SRT\033\_SRT Package\Parametric Model\AEV\_Tool\05\_Images\CAD\_Images\"

'Names of image

Dim Lay as String

Lay = "Bus\_Interior.png"

Dim file\_Lay as String

file\_Lay = fileloc&Lay

'Setting camera to side view

Set objCamera3D = CATIA.ActiveDocument.Cameras.Item(6)

objViewer3D.Viewpoint3D = objCamera3D.Viewpoint3D

'Rotating interior view on z-axis, define rotation vectors for current viewpoint

Dim vDirectionSight(2) As Variant

objViewer3D.Viewpoint3D.GetSightDirection vDirectionSight

'Perform rotation

Dim RotationAngle As Double

RotationAngle = 90

'Rotates model

objViewer3D.Rotate vDirectionSight, RotationAngle

'Taking Interior Image view

objViewer3D.Reframe()

objViewer3D.ZoomIn()

objviewer3D.Capturetofile 4,file\_Lay

'Changing from fullscreen to normal view

objViewer3D.FullScreen = False

'Changing background color back

objViewer3D.PutBackgroundColor(dblBackArray)

'Turning the spec tree back on

objSpecWindow.Layout = catWindowSpecsAndGeom

'Toggle compass

CATIA.StartCommand("Compass")

'Set trigger to determine when action is finished, trigger is linked to existing txt file

Dim File As File

Set File = CATIA.FileSystem.GetFile ("T:\04\_Cluster\_C\500\_SRT\033\_SRT Package\Parametric Model\AEV\_Tool\06\_Exchange\catia\_trigger.txt")

'Action is done, when "trigger" is appearing in txt file, further progress done by Matlab

Dim DStrom As TextStream

Set DStrom = File.OpenAsTextStream ("ForAppending")

DStrom.Write "trigger" & Chr(10)

DStrom.Close

'End code

End Sub